DOCUMENT RESUME

ED 420 621 SP 037 972

AUTHOR Aston, Michelle; Hyle, Adrienne E.
TITLE Social Networks, Teacher Beliefs, and Educational Change.
PUB DATE 1997-10-00
NOTE 54p.; Paper presented at the Annual Convention of the University Council of Educational Administration (Orlando, FL, October 27-28, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Classroom Environment; Collegiality; Curriculum; Elementary Education; Elementary School Teachers; Life Events; Nontraditional Education; Peer Influence; Principals; Public Education; Rural Schools; *Social Networks; Student Characteristics; Tables (Data); *Teacher Attitudes; Teacher Collaboration; Teacher Responsibility

ABSTRACT

This study examined the social networks of teachers' strong and weak ties and the impact of those associations upon their beliefs about the realities of elementary education in terms of the knowledge and skills that influenced those realities: school context, general pedagogy, specific subject matter pedagogy, nature of the learner, and self as teacher. The study collected data from principals and teachers at two demographically similar, rural elementary school sites using long interviews, direct observation, and review of communication documents between and among teachers and principals. Data analysis involved examining traditional and nontraditional beliefs, Granovetter's (1973) strength of ties, and McPartland and Braddock's (1981) Perpetuation Theory. Results indicated that across sites: teachers beliefs supported a range of perspectives about elementary education from traditional to nontraditional; social networks tended to impact teachers' beliefs more than school experiences; and the networks offered opportunities for strong and/or weak ties to develop. The weak ties in traditional schools that fostered professional collaboration and teamwork helped chip away at traditional beliefs established through life experiences. Strong ties in schools that supported nontraditional beliefs ameliorated the effects of traditional life experiences. The principal's role was evident as a fosterer of positive networking. (Contains 2 figures, 6 tables, and 19 references.) (SM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

EA

ED 420 621

Running Head: TEACHER BELIEFS AND CHANGE

SOCIAL NETWORKS, TEACHER BELIEFS AND EDUCATIONAL CHANGE

Michelle Aston, Principal
Elementary School
Owasso, Oklahoma

Adrienne E. Hyle, Associate Professor
School of Educational Studies
Oklahoma State University

Paper presented at the 1997 Annual Meeting of the University Council
Of Educational Administration, Orlando, FL.

SP 037 972

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

M. Aston

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Abstract

The purpose of this study was to examine the social networks of teachers' strong and weak ties and the impact of those associations upon their beliefs about the realities of elementary education in terms of the knowledge and skills that influence those realities: school context, general pedagogy, specific subject matter pedagogy, nature of the learner, and self as teacher. Data were collected from principals and teachers at two demographically similar elementary school sites using the long interview method and direct observation. Using traditional and non-traditional beliefs, Granovetter's (1973) strength of ties and McPartland and Braddock's (1981) Perpetuation Theory as analytical lenses, it was found that across the sites (1) in general, teachers beliefs support a range of perspectives about elementary education from traditional to non-traditional, (2) social networks tend to impact teachers' beliefs more than school experiences, and (3) these networks offer opportunities for strong and/or weak ties to develop. The weak ties in traditional schools that (or which) foster professional collaboration and teamwork help chip away at traditional beliefs established through life experiences. Strong ties in schools which support non-traditional beliefs also ameliorate the effects of traditional life experiences.

A STUDY OF THE IMPACT OF SOCIAL NETWORKS AND TEACHER BELIEFS ON EDUCATIONAL CHANGE

Every teacher maintains a set of beliefs about how children learn and grow and exactly what knowledge should be acquired to live a successful life (Parkay & Stanford, 1992). These beliefs are the foundation for each teacher's educational philosophy; they may be easily recognizable or unconsciously held convictions (Kagan, 1992). Despite the fact that teachers hold individual convictions, Cuban (1984) posits that the majority of teachers teach as they were taught. This perpetuation of teaching styles and philosophy is influenced through a variety of sources, particularly social networks (Hargreaves & Fullan, 1992; Lortie, 1975; Schubert & Ayers, 1992).

Statement of the Problem

In the literature on teacher beliefs, two conflicting sets of realities are being constructed. One supports the notion that teachers mold their beliefs based on interaction and reflection with other teachers (Schubert & Ayers, 1992). Through this interaction and reflection with their colleagues, teachers are able to develop and reconstruct their knowledge about learning (Hargreaves & Fullan, 1992). The other reality supports the notion that teachers work in isolation of each other and are rarely provided an organized way to communicate with other teachers (Lortie, 1975; Goodlad, 1984). In an isolated culture, teachers are seldom offered the exposure to alternative practices and viewpoints (Bauch, 1982; Hargreaves, 1982; Fullan, 1991).

This anomaly is like that reported by Braddock (1980), McPartland and Braddock (1981), and Wells and Crain (1994) in their explanations of the perpetuation of

segregation through network analysis. They determined that strong ties, characterized by relationships with family and close friends, anchor traditional views of segregation while weak ties, characterized by acquaintances or friends of friends, bridge to new views and social ideas including integration across races. Through the lens of Perpetuation Theory, then, the perpetuation of traditional educational perspectives would be explained through the overdevelopment of teacher's strong ties and the underdevelopment of teacher's weak ties.

Purpose of the Study

The purpose of this study was to examine the social networks of teachers' strong and weak ties and the impact of those associations upon their beliefs about the realities of elementary education in terms of the knowledge and skills that influence those realities: school context, general pedagogy, specific subject matter pedagogy, the nature of the learner, and self as teacher (Bennett & Spalding, 1991). This purpose was accomplished by:

* Data collection from two purposively demographically similar yet ideologically divergent rural elementary school sites, Deer Creek Upper Elementary (grades two through five) and Meadowview Elementary (grades kindergarten through sixth) using the long interview method, direct observation and document review.

* Data presentation from each individual site and then collectively into the five components of elementary education (Bennett & Spalding, 1991): school context, general pedagogy, specific subject matter pedagogy, the nature of the learner, self as teacher and an additional category, influences on teachers' beliefs.

* Data analysis by site, then collectively, from three perspectives: (1) traditional and non-traditional teacher beliefs, (2) Granovetter's (1973) social networks and strength of ties, and (3) McPartland and Braddock's (1981) Perpetuation Theory.

Orienting Frameworks

Theoretical or conceptual frameworks impact our traditional understanding by questioning the conceptual categories we use and the goals we think we want to achieve (Liston & Zeichner, 1990). When "examining teaching and the social context of schools through various conceptual frameworks, one begins to see new issues, reformulate old issues, question one's accepted image of society and the social order, and look at oneself in a new light" (Liston & Zeichner, 1990, p. 135). It is in this spirit that Perpetuation Theory (Braddock, 1980; McPartland & Braddock, 1981; Wells & Crain, 1994) was used as the framework which guided this examination of elementary teacher's educational beliefs.

Perpetuation Theory

Based on the developments of Braddock (1980) and McPartland and Braddock (1981), Perpetuation Theory maintains that segregation of African Americans tends to perpetuate itself "across the stages of the life cycle and across institutions when individuals have not had sustained experiences in desegregated settings earlier in life" (McPartland & Braddock, 1981, p. 149). Braddock (1980) points out that as adults, minority students will most likely make choices perpetuating physical segregation because they were never afforded the opportunity to test their racial beliefs. He has found that African American students from desegregated high schools are more likely to

attend a predominantly white college (Braddock, 1980) and have higher occupational aspirations more realistically related to their educational aspirations and achievements than segregated African American students (Wells & Crain, 1994). Building on these assumptions, Hoelter (1982) predicted that school desegregation would provide African American students with more information pertaining to educational and occupational opportunities and a means of achieving specific goals, thus breaking the cycle of segregation.

Networks

Using Granovetter's (1973, 1983, 1986) "strong ties" and "weak ties," Wells and Crain (1994) expanded Braddock's Perpetuation Theory (1980) through network analysis. Granovetter (1973) maintains:

> the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie. Each of these is somewhat independent of the other, though the set is obviously highly intracorrelated. (p. 1361)

Strong ties include close relationships between individuals with similar thoughts and beliefs, i.e., family members and close friends. "The more frequently persons interact with one another, the stronger their sentiments of friendship for one another are apt to be" (Homans, p. 1950, p. 133) and the stronger the tie or network.

Weak ties, however, are a "less formal interpersonal network – that is, acquaintances or friends of friends" (Granovetter, 1973, p. 533). Weak ties often link individuals to "new" socially distant ideas. "Weak ties are more likely to link members

of different small groups than are strong ones, which tend to be concentrated within particular groups" (Granovetter, p. 1973, p. 1376). Thus, weak ties play a significant role in networking. The termination of the average weak tie would possibly do more damage to the communication system within the organization than that of the strong tie, since weak ties travel a greater social distance and reach a larger number of people (Granovetter, 1973). Overall, weak ties afford people more opportunities.

School desegregation studies frequently show that cross-raced ties are not very strong. But, even such weak ties may significantly affect later economic success. Because employers at all levels of work prefer to recruit by word-of-mouth, typically using recommendations of current employees, segregation of friendship and acquaintances means that workplaces which start out all white will remain so (Granovetter, 1986).

The findings of Lortie (1975) and Goodlad (1984) indirectly support the notion of strong ties in schools. Traditionally, teachers work in isolation and are rarely provided an organized way to communicate with other teachers. When teachers do collaborate, they do so with those who are likely to have similar thoughts and beliefs, such as those who teach the same subjects or grade level students. Perhaps these strong ties perpetuate the traditional perspectives of education, those handed down through many generations, and supported by the reality that teachers teach as they were taught (Cuban, 1984). In such a culture, strong ties offer few opportunities to break this cycle through exposure to alternative practices and viewpoints (Bauch, 1982; Hargreaves, 1982).

Research supports the notion of weak ties as well. We know that teachers need the opportunity to "discuss practice, collaboratively design materials, and inform and critique one another" (Raywid, 1993, p. 30). Such opportunities allow teachers to form networks that provide "support, knowledge, and encouragement necessary for teachers to implement innovative ideas" (Lieberman & McLaughlin, 1992, p. 675). When teachers are brought together to interact and reflect, they are exposed to alternative beliefs and practices (Schubert & Ayers, 1992). Opportunities for professional collaboration are provided through staff meetings, collaborative committees, team teaching, workshops, and casual social functions. It is assumed that weak ties will afford teachers more opportunities to expand their knowledge bases and, thus, indirectly challenge traditional ideologies.

Wells and Crain's (1994) conceptual connection between network analysis and school desegregation suggest the need to recognize both micro and macro "connections inherent in the flow of information and opportunities through interpersonal networks" (Wells & Crain, 1994, p. 534). We examined both levels as well. The micro-level focused on individual teacher's beliefs: the macro-level referred to the belief systems of the school site and district. We assumed that strong ties would most likely be dominant at the micro-level given organizational isolation and the general tendency of individuals to associate with people of similar thoughts and beliefs. Conversely, we assumed that the macro-level offered more opportunities for weak ties to occur because teachers would be afforded opportunities to interact differently, to communicate with a different set of people, and to learn new information.

Components of Elementary Education

Teacher beliefs reflect a broad range of topics and assumptions. Using Bennett and Spalding's (1991) model of knowledge and skills which influence the constructed realities of elementary education, we devised a set of five conceptual categories which reflect teacher beliefs: self as teacher, general pedagogy, specific subject matter pedagogy, the nature of the learner, and school context. Because Bennett and Spalding (1991) did not define these areas of knowledge and skills, our definitions flow from the literature and personal experience.

Self as teacher we defined as teachers' perspectives of roles and responsibilities in the classroom and school district (Porter & Freeman, 1986; Pajares, 1992). General pedagogy referred to the teacher's general instructional philosophy and strategies. This included the role(s) and purpose(s) of schools in society and who decided and dictated the curriculum and teaching strategies used (Porter & Freeman, 1986). Specific subject matter pedagogy focused around content of different subjects (i.e., reading, mathematics, or the nature of science). The importance of each subject area was considered, as well as effective instructional methods used to deliver that content (Pajares, 1992). The teacher's philosophy of students and how they learn defined the nature of the learner. This included the different roles and responsibilities of students within the classroom (Porter & Freeman, 1986; Pajares, 1992). School context was the culture and climate of the school, specifically the personality of the school and who was responsible for setting that tone. Each component was pursued in the inquiry of the study as a potential component of teachers' beliefs (Bennett & Spalding, 1991).

Procedures

The explanatory case study method (Yin, 1984) was used to reconstruct perceptions and illuminate the meanings of experiences. It was "an ideal design for understanding and interpreting observations of educational ph[illegible]na" (Merriam, 1988, p. 2) because it enabled the presentation of "competing explanations for the same set of events" and could "indicate how such explanations may apply to other situations" (Yin, 1984, p. 16).

Case Study Sites and Data Collection

The case studies were conducted in two rural communities in the northeastern section of a Midwestern state. Sites were selected because of demographic similarities as well as their reputation of being either a typically traditional or typically non-traditional school. It was assumed that traditional schools would be administratively authoritarian and bureaucratic, with a homogeneous, isolated, less diversified and collaborative setting. Non-traditional schools were assumed to be more diverse and heterogeneous settings, promoting teacher professional collaboration. The principal at each site was asked to provide an initial list of teachers to be interviewed who held strong beliefs about education and reflected staff diversity (i.e., age, grade level, years of experience, and educational background). Faculty recommendations were also sought and used. In addition to interviews, observations of classrooms and faculty interactions were used to gain insights into the impact of beliefs upon practice and to examine the social networks present within the school. Communication documents between and among the teachers and principal were also collected.

To protect anonymity and confidentiality, pseudonyms were assigned to each participant.

Data Analysis

Data were analyzed simultaneously throughout data collection. Merriam (1988) maintains that in a qualitative design,

> one does not know whom to interview, what to ask, or where to look next without analyzing data as they are collected. Hunches, working hypotheses, and educated guesses direct the investigator's attention to certain data and then to refining and/or verifying one's hunches. (p. 123)

Throughout the process, we reviewed the literature, reflecting simultaneously on the readings and the data collected. Information was coded into tentative conceptual categories. These categories raised more questions that guided further investigation. Findings from the investigations were compared to the original categories. Through this constant comparison of data, analytical categories began to crystallize. Data that challenged the initial conceptualization were given special attention (Goodman, 1984). Recurring regularities in the data served as the basis for redefining categories.

Multiple sociograms, maps indicating a "general pattern of interaction between groups or individuals" (Lowry & Rankin, 1972, p. 171), were used to describe the social networks present within each school. Teachers were asked to name those people with whom they collaborated. Frequent professional collaborations were indicated by a solid line; occasional collaborations were indicated by a broken line. A sociogram indicating

the strength of ties within each school was also constructed. The solid line indicated strong social ties; the broken line represented weak professional ties.

Case Studies

To ease in presentation and analysis, the two cases are presented and compared concurrently around the following descriptive categories: district and school demographics, self as teacher, general pedagogy, specific subject matter pedagogy, the nature of the learner, school context and influences on teacher beliefs.

District, School and Respondent Demographics

Deer Creek Upper Elementary was chosen for this study because it met the characteristics of a traditional school. Meadowview Elementary was chosen for this study because it was considered to be a non-traditional school.

The Deer Creek school system served a total of 907 students and was centrally located in its rural community of approximately 4,300. The school buildings were designed so that all grades (K-12) were within walking distance of each other. In addition to the Upper Elementary which housed grades two through five, the school system consisted of three additional buildings: Lower Elementary (K-1), Middle School (6-8), and High School (9-12). Like Deer Creek, Meadowview Dependent School District was located in a small rural two with a population of approximately 2,300 and served 414 students. Two schools made up this school district: Meadowview Elementary (K-6) and Meadowview Junior High (7-8).

At Deer Creek Upper Elementary a total of 26 certified staff served approximately 360 students. Sixty percent (60%) of the students were classified as white, 38 percent

were American Indian, one percent were Hispanic, and one percent were African American. The average class size was 20 students. Meadowview Elementary employed a total of 24 certified staff members who served approximately 280 students. Eighty-three percent (83%) of Meadowview Elementary's students were classified as white, while 15 percent were American Indian, one percent Hispanic, and one percent African American. The average class size was 23 students.

Eight site staff provided perspectives for each case. The average number of years experience of faculty at both sites was 15 years and most faculty held no more than Bachelor's Degrees. All Deer Creek respondents were given pseudonyms starting with the letter "D;" Meadowview respondents were given pseudonyms starting with the letter "M."

Comparison. Both sites were chosen because of their similarity in size and location, student, staff, and community demographics. Table 1 summarizes the demographics of each school site.

Insert Table 1 about here

Self As Teacher

Across both sites, two categories of teachers' responsibilities emerged from the data: responsibilities within the classroom and responsibilities within the school.

Classroom responsibilities. At Deer Creek, a common responsibility within the classroom was providing a productive environment in which students could succeed.

This environment was one where everyone could and desired to learn and students felt secure no matter what the circumstance.

> I have these kids for a year and I like to give them as much opportunity to grow and learn as possible. And to help them to be productive people, help them to reach their potential in whatever way, whatever ways that they learn. (Debbie)

To provide a productive environment, teachers must find ways "to make learning interesting to the students and to make it readily available for the students" (Diane).

Another responsibility mentioned was to facilitate learning, not just present material. Dawn noted that "I'm the one that plans these experiences for them, help them, direct them and give some structure to their learning, because they are not old enough to do that." Diane saw herself as a "mentor in a sort of sense, that encourages them to work toward certain goals, realize the importance of education." Dorothy and Dawn also noted that not only is it the teacher's responsibility to plan for experiences but to also be flexible enough to make learning experiences out of unexpected situations. Dorothy explained:

> It's also my job that if I plan and it doesn't go just that way, just exactly, then I should be flexible enough to be able to read my plan and go another direction and the learning that takes place then, sometimes can be so much better than anything I ever planned.

At Meadowview, a productive environment in which students could succeed was stressed by several as a common responsibility within the classroom. Meg believed it should be a "fun, but productive" environment. Margo believed that it should be a place

where everyone can and desires to learn. Students should also feel secure no matter what the circumstance. To provide that environment, Madeline used whatever teaching method necessary to meet students' needs. Other responsibilities within the classroom were to provide leadership to students; set good examples, provide compassionate, yet firm guidance; and facilitate learning, not just present material.

School responsibilities. At Deer Creek, Dennis insisted that the teacher's responsibility does not end in the classroom. In fact, I've always toyed with the idea of instituting a policy, 'leave your doors open.' We all work together as a team. …your responsibility is from the time you get to work to the time you leave." Debbie agreed.

> I feel like one of my responsibilities in the school is to be part of the team. And to do whatever I can to help the whole school be successful. Whether it means share materials, or share ideas, or receive someone else's ideas or materials.

Dawn added that she felt it was also her responsibility to help "with the leadership, if I am called upon to do that." Dorothy continued this thought by noting that as a senior teacher she must be a role model to the less experienced teachers within her school.

At Meadowview, a common responsibility within the school was professional collaboration; teachers needed to work well with one another and support each other. They must communicate their needs, goals, concerns, and suggestions. "Communicating your ideas and your views and just [trying] to get along and work with the other people" was very important to Marcia. Teachers should also involve themselves on committees and play an active role in the decision making process.

Comparison. Responsibilities of a teacher within the classroom that emerged from both schools were to provide a productive environment and to facilitate learning. Deer Creek respondents also believed it to be the teacher's responsibility to plan the curriculum and mentor students. Meadowview respondents believed the teacher should set a good example within the classroom and provide guidance to students. Table 2 summarizes these similarities.

Insert Table 2 about here

Beliefs of General Pedagogy

General pedagogy or general instructional philosophies and strategies, broke into two categories across both cases: purposes of education and selection of curriculum.

Purposes of education. At both sites, five purposes of public education emerged from the data. The first purpose was to provided a basic foundation. At Deer Creek, Dawn and Della believed that elementary education set the foundation for learning. Debbie agreed, "not only is it the foundation for education, but also in the way children related with people, socially." Diane described this foundation as a means of setting students "attitude, their feelings about their own confidence, their interest and motivation. In many ways it's a determining point as to their success or failure in future years of school." These educators believed that elementary education set the pace for future formal education; "without a good beginning, everything from then on is weak" (Dawn). While at Meadowview, Meg emphasized the importance of elementary education because

it is "the kid's first formal education. A lot of them have been to preschool and all, but it's the first really formal education that they get."

The second purpose of education was to teach basic skills. At Meadowview, Madeline stressed that "teaching the basics so that they [students] can go on and get all the goodies" should be the primary purpose of education. Meg agreed that it was important for students "to learn the academic subject area." In addition to the subject area, Marcia believed that the purpose of elementary education should be "to help people become independent thinkers, to be able to synthesize information and make decisions." At Deer Creek, Dennis believed that basic skills were vital and that his school had spent a lot of time on "phonetics, basic reading skills, [and] basic math skills." Dawn agreed:

> reading and math, of course, and writing, are the core things. But underlying all of that, I think, is that ability, in a sense, that they have to love to learn and to enjoy being there and think of it as an adventure and something they are going to look forward to doing.

The third purpose was to prepare students to succeed in society. At Deer Creek, Dennis maintained "the biggest thing [purpose] is giving the students the right tools to survive in society." Those tools include teaching basic skills and providing a basic foundation for the students. At Meadowview, several emphasized that it was the school's responsibility to prepare children to survive in today's world and to function as a contributing person. Meg also argued that students needed to be taught "socially how to get along with people." Michael agreed that schools must give students "the kinds of

tools that [they] need to survive, to take care, to maintain, to be successful, to charge forward, to protect, [and] to engender."

The fourth purpose was to develop self-confidence. Dennis wanted his students "to come away with a determination that they feel positive about self. Self-image is very important." Deer Creek Upper Elementary students had been involved in conflict-mediation and through a service club were observed providing assistance to other students, teacher, and office staff. At Meadowview, Madeline summed it all up. It was imperative to get "children started right in a direction where they feel good about themselves... Promoting self-confidence is essential."

The fifth and final purpose was to provide a balanced education. At Meadowview, Michael felt that it was necessary to provide students with a well-rounded, basic education. How was that accomplished? "You've got to have a variety of technology and methodology and philosophy and compassion, understanding, and patience. All of those things are amalgamated into one bit 'ole stew to allow those children to function" (Michael).

At Deer Creek, Dennis also felt that it was necessary to provide students with a well-rounded, basic education. He stated proudly,

> We've made a gain every year on our achievement test scores, on our school wide test scores. It's up a tenth of a point now, but maybe we're starting to top out on our students. I think that coming away with a well-rounded, basic education is key.

In addition to a well-rounded education, Dawn added the following concern:

> I think society expects a lot more of schools than we are able to provide. I think we are having to teach ethics and morals and values and those kind of things that really should be coming from the home. But, so many of the kids we get don't have that. So, often times, we are being the parent. You are the only adult that has any responsibility, at all, in their lives. Of course, that complicates everything, you don't have as much time for the basics.

Selection of curriculum. At Deer Creek, all teachers voiced a concern about curriculum being handed down by the administration. Dennis, the principal, believed teachers were allowed discretion to determine what curriculum works with their students

> as long as they follow policy. And we do a lot of that. They sign away for everything. We monitor the materials and have a survey questionnaire which they have to put down what they use in the classrooms. Anytime they bring outside materials if they have to have it okayed by me. They sign a statement to the fact that they are aware of that policy.

The teachers believed there should be a combination of factors taken into consideration when deciding the curriculum. Diane thought that it should be a joint effort among the

> teachers and the school principal and the school administrators, superintendent. Parental input is also important. I think the bulk of the decision making, though, should be done by the teachers and the principal, then administrators.

Dawn agreed that parental involvement was important "because it's their child that you're dealing with. Certainly, you have to have some guidance and somebody to make the final decision, so you have to have administrators and the board of education,

involved in it." Debbie wanted to see all of the teachers of that grade level come together and write the curriculum. However, she knew this curriculum must be approved and supported by the administration.

At Meadowview, teachers generally believed that they should be able to use their discretion to determine what works with their students given that they deliver curriculum to students on a daily basis. Martha said, "I feel qualified to make those decisions." Michael agreed and pointed out that "teachers sometimes decide that they know what is best. And in most specific instances they do." He believed the timing most definitely should be left to the teacher: "Those really true teachable moments, those precious times, when you are actually cooking and you are actually teaching, that is up to the teacher." Others, including Margaret, believed that a committee of teachers should work to make the curriculum student-appropriate. She continued,

> As a group all the teachers that work together should all have a say because kids can't learn one way and then shift and learn another way.... We all have to discuss and decide what's going to be best for the kids.

Even with teacher involvement in the curriculum, several teachers felt the need to have local, state, and/or national guidelines and involvement. Marie agreed that guidelines were important because "even though we don't all start up at the same place and we're not all going to end up at the same place, we're all going to be going out in the same world." Teachers believed they could take those guidelines and "go from that, expand, and carry on" (Meg). Even though the teacher decided what to teach, as well as when, Michael noted that

> generally it's the community [that decides], more general than that, it's the state. More than that, it's what the nation sees ...mandated goals, because they're going to determine how it will be funded.

Comparison. The same five purposes of public education were supported by respondents in both case studies. At both sites, teachers also felt that they should be involved in developing the curriculum or that a combination of factors should impact curriculum decisions. Deer Creek teachers felt that the administration had a significant role in developing the curriculum, while Meadowview believed that the textbook companies greatly impact the curriculum. Table 3 summarizes the area of general pedagogy from each case study.

Insert Table 3 about here

Specific Subject Matter Pedagogy

The focus of specific subject matter pedagogy was priority skills and teaching strategies.

Priority skills. Across both sites, the majority of the respondents agreed that reading, writing, and arithmetic were the most important subjects in elementary education. At Deer Creek, Dawn noted that she "felt like we spent a lot of time on reading, probably to the detriment of social studies and science." Why? Because, as Debbie noted, "if you can't read, you can't do the other things." The same was noted at Meadowview. Michael said that "what the community wants is a kid that can read, write

[and] do mathematics. That's the main thing they want. And that falls right along the line with what all these teachers want to do."

At Meadowview additional requirements were also indicated. In conjunction with the three R's, communication was a must. Michael contended "learning to be a good communicator and a good listener, that's first. You can't process unless you can listen. You have to be able to communicate." Marie contended that not only do you have to be able to communicate orally, but also in a number of other ways to "be successful and to feel like you really are in control of your life and other people don't just control you."

Teaching strategies. At both sites, instructional strategies of the three R's varied across respondents. At Deer Creek, some believed each subject should be treated separately but equally while others desire to integrate subjects more. Della blamed her teaching strategies on the new curriculum. She summed her perspective up in the following:

> They dumped a lot of new things on us last year. Like four different areas and so you kind of have to keep them separate right now. They changed our reading, math, and science. Nobody knows what they're doing in the reading series. We're supposed to integrate reading and writing and what not. But they didn't give us any training.

Other respondents preferred an integrated curriculum. Dawn indicated the following: "I like to integrate and work thematically." And, Dennis asked that his teachers "interrelate different subject matter. Not just teach math, teach reading, and teach social studies, but incorporate those subject matters together." Other effective methods mentioned that meet

the needs of auditory, visual and kinesthetic learners were hands-on, homework study, learning centers, cooperative activities, one-on-one, and peer tutoring.

Della mentioned that she used mostly direct instruction. Why? "That's the way that we were taught in school. So that's what you know. That's the only thing you know." In her classroom, all students faced the front of the room and she taught from the front of the room. The same was true of other teacher's classrooms. Students worked quietly, without visitation.

Dawn, however, found that she had the most success when she allowed students to actively participate. "They get to talk, they get to discuss with whoever their seatmate is and they are actively doing things." This active participation led to cooperative learning which promoted a comfortable learning environment. Her classroom appeared to be very democratic; lessons seemed to be more of a conversation than lecture.

At Meadowview different things were in place. Margo noted that for her "the subjects pretty much come into balance and try not to over weight one or the other because it is more interesting to do a lot of different things." Margaret admitted that the majority of the time she taught subjects in isolation, but tried to integrate some. Other respondents chose to integrate the curriculum. Meg insisted that "you can't help but integrate."

Effective teaching strategies also varied according to the learning needs of the student at Meadowview. Madeline noted that "I try all approaches because no two students are alike. They do not learn the same way." Marcia did not believe that one particular method was best. She tried a variety of methods to reach the variety of

learning needs and interests. Other effective methods that were mentioned were hands-on, oral repetition, learning centers, cooperative activities, whole language and peer tutoring.

Margo saw the great difference that instructional programs such as Shurley English and Classroom Phonics had made by using the repetition and the constant review and use of information. Martha stressed the need for manipulatives: "I use a lot of manipulatives. If you look around, you see concrete materials." She also placed a lot of emphasis on reading. "We use big books and [the] little books that go with those. I do a whole lot of reading. Just reading to children is very, very important." Margaret also believed in taking children out of the textbook and using core books to teach reading.

Comparison. Teachers at both schools agreed that reading, writing, and arithmetic should have the most emphasis in elementary education. Meadowview respondents also believed that communication should be heavily emphasized. Both schools had teachers who taught subjects in isolation and those who supported an integrated curriculum. Several Deer Creek respondents taught in a traditional mode, using direct instruction. Both schools agreed on a variety of instructional strategies: hands-on, learning centers, cooperative activities, and peer tutoring. Deer Creek respondents also believed homework study and individualization were effective teaching strategies. Meadowview respondents believed whole language and oral repetition were other effective teaching strategies. Table 4 summarizes this area.

Insert Table 4 about here

Nature of the Learner

The nature of the learner referred to the teacher's philosophy of the student and how the student learns. Two themes emerged from the data: students' roles and responsibilities in education and the most effective ways for students to learn.

Students' roles/responsibilities. At Deer Creek, several different responsibilities emerged. Dawn believed that not only was it the teacher's responsibility to teach, but it was the student's responsibility to learn "and hopefully enjoy it while they are learning." Diane agreed but added that "we have to engage them in wanting to acquire knowledge." Dorothy added "I would hope that they would be an active participant, not just someone to sit there and let it all rain on them and just hope that it all grows somewhere." Della continued this thought: "They need to come to class each day to pay attention and put forth some effort to learn."

Several respondents at Deer Creek also voiced their desire to see students take more responsibility. "They're responsible…for meeting some of the goals. They're responsible, with your guidance, to set some of their own goals for learning" (Diane). Dawn believed "their responsibility is to grow as much as they can every day. …and learn more responsibilities as they go along; start taking care of their own materials and doing their job." Dana sent home daily assignment folders and expected students to

study for the spelling and reading vocabulary tests in addition to other homework assignments.

At Meadowview, other responsibilities emerged. Michael believed that not only was it the teacher's responsibility to teach, but it was the student's responsibility to learn. He said "their function is to learn as much as they can, as well as they can, with whatever tools God gave them." Several other respondents felt that students needed to be active participants. Madeline thought "a student needs to be an active participant in the classroom." Meg agreed but said that did not mean students should have free reign. "I thing they should feel free to ask anything they want to or suggest could we do this. I want my…students to feel that it's also their classroom, that I'm not a dictator."

Margaret believed the student's role was plain and simple: "All I ever ask of my kids is that they try their best. …that they put forth their effort and do just the best that they can." Paying attention was another important role Madeline believed a student should take on:

> The student is responsible for paying attention as much as they possibly can and gaining as much from the environment as possible. And paying attention is really very important because they can get what's there.

Other respondents felt that the students should be involved in making choices. "I think their part is to make some choices that express their interests" (Margo). Marie agreed,

> I think that they should be able to have more control over what they're going to learn or how they're going to learn it. …If you got a little curriculum guide and it's touching on some basic things that you really need to teach, then you can

> show that guide to the kids. There's not any bit mystique about that. And kids can understand that no matter what their age is. ...If you're a good teacher you can explain it.

Ways students learn. Respondents were also described what they believed to be the best ways for students to learn. At Deer Creek, many believed each child had his/her own way of learning; what worked for one did not always work for another. Darcy said: "It's like going on a diet. ...You're lucky when it works, and if it doesn't work then...try something else." Because of this, Deer Creek teachers believed a varied approach to teach skills should be used. Dorothy said

> I try to provide the auditory. I try to verbally tell. We read. With the hands-on, we try that. I try everything. Sometimes you hit it, sometimes you don't. You just hope that by trying it every way that you can, you hit their learning style.

Dawn added:

> I think that they[students] learn their best...when they are actively involved, when they are getting to talk and they are expressing what they're learning and they get to practice. They are not just sitting there soaking it up, but they're doing experimenting. When they are involved, I think that they can't help but learn, even if it is incidental.

Diane added: "Actually cooperative learning I've found to be very helpful and very enticing to the students." Debbie also noted that students need to realize their capabilities of learning: "I think probably the first thing they [students] need to do is realize the

importance of learning. ...That everyone can learn. Everyone has the ability to learn something."

Many at Meadowview also believed that students had a variety of learning needs. Meg noted "some children will learn one way and some will learn another." Because of this, teachers should use a varied approach to teaching skills. Margo and Margaret believed being able to do something with manipulatives and experiments, instead of just working out of a book was effective for some students. Madeline believed that it is important to set up a safe environment in order for students to feel comfortable in learning: "They need to be safe and comfortable and they need to have self-esteem. They're not going to learn very much if they don't have those things first." Other areas of approach that were mentioned were individualization and peer tutoring.

Marie added a realistic twist to the varied approaches of learning. In spite of all that is done, it is a common practice to teach all students equally.

> But kids are at different places functioning academically and yet we start them off at the same place. And I think we do that because we want them all to end up at the same place, at the same time, which stifle some and really pushes others to their stress point. And the place we want them to end up is where that test is or we want them to end up at the same place so...it'll be easier for the next year's teacher.

Comparison. The nature of the learner was defined as the teacher's philosophy of the students' role and responsibilities within education and the most effective ways for them to learn. Both schools agreed that the student was responsible to learn, to actively

participate, and to pay attention. Deer Creek respondents also believed students should take more responsibility for their actions. Meadowview respondents believed students should do their best and be involved in making choices within the classroom and curriculum. Teachers at both schools agreed that students had a variety of learning needs and thus instructional strategies should be diversified enough to meet those needs. They also agreed that learning by doing was an effective way to meet those learning needs. Deer Creek respondents believed that peer tutoring and cooperative learning were other ways that students learn best. Table 5 summarizes the similarities and differences in the area of the nature of the learner.

Insert Table 5 about here

School Context

Deer Creek respondents primarily believed that the tone of the school was set by the principal, Dennis. He had high expectations of his staff and students and yet showed a genuine interest in the success of each. Deer Creek experienced a change in leadership during the study. The long time superintendent resigned and was replaced by the assistant superintendent. Little was mentioned about the effect of the change, however, most expressed a positive attitude about the new superintendent, hoping he would not be as bureaucratic as the previous one. They also hoped that under the new superintendent Dennis would be given the freedom to lead as he chose. Many believed Dennis "doesn't get to do things the way he would really like."

At Deer Creek, before and after school, planning periods, and lunch periods seemed to be reserved for socialization. During those times, teachers either visited socially in the hallway or stayed in their room. The faculty lounge was very small and few teachers seemed to take advantage of this area. During faculty meetings, teachers primarily sat within close proximity of their grade level team members. Teachers collaborated predominantly within their grade level; "they communicate closely with the people that are within their grade level" (Dorothy). Darcy and Dawn attributed this to the physical logistics of the building; all of the classrooms were clumped together by grade level. Dennis mentioned that teachers had additional opportunities to collaborate through committees on which they served (i.e., principal's advisory committee, curriculum committee, carnival committee, parent organization liaison, field day committee, social committee, Title II, Chapter II and textbook committee).

Although teamwork and professional collaboration were highly encouraged, no release time was provided. None of the teachers mentioned committee work to be a source of teacher professional collaboration but did voice concern about committee participation; they felt that voicing their opinion was a waste of time because it was rarely considered. Debbie, when appointed to the curriculum committee and asked to voice her opinion, found herself very frustrated because "you tell them what you think; you tell them why you think this; and it's for no good."

An Interaction Sociogram, Figure 1, presents the Deer Creek respondents' interactions.

Insert Figure 1 about here

At Meadowview, respondents voiced concern about the climate of their school changing over the past few years. Michael described Meadowview Elementary School as being tired and war-torn. "We've gone through several superintendents now. There's a lot of, I think, dissatisfaction with change. I don't think teachers like change much. There really needs to be some quiet time." Meg described Meadowview as once being a "loving, happy place to be, where children always feel welcome." She remarked that the climate had changed in the last five years. "I think maybe there's more inner turmoil than there used to be. ...they [teachers] start to strongly disagree where they maybe didn't at first." Martha agreed that ever since the old superintendent left, there had been a lot of change.

> He sort of held everything together. He was an excellent superintendent. And it's hard to make change. But, it's just hard to find someone that allows and supports a lot of different viewpoints and a lot of freedom to make decisions. He expected everybody to help make decisions. And everybody was willing to do that. But you don't find too many superintendents like that.

Despite the changes in leadership, Marie believed that teachers were "relatively satisfied to be at [Meadowview]. And maybe that's because they kind of have a safety as far as they know the people that teach there and they pretty much know what they stand

for." Marie also agreed that the climate had change, however, she attributed that to a changing enrollment.

> And I don't mean just in size. We may not really be growing that much in size, enrollment wise. But our enrollment is changing. I think we're seeing more transitional people come in who won't stay as long. I think we see people who come from another little school down the road that wasn't quite as progressive as ours and they are made at that school so they come and bring their kids to our school. And then they figure out their kids can't cut it, so they're now mad at ours and they pull them out and they take them somewhere else. We get parents who are questioning more.

Meadowview could also be described as community-oriented. "It's very much community-oriented as opposed to a larger school. It is much more personal than many larger schools can be." Martha added that Meadowview Elementary has "always been a real part of the community in the sense [the community] felt like it was their school and they're able to help make policies."

Marcia also described Meadowview Elementary as being progressive and aggressive. Progressive in the sense that everyone stayed updated on research and were willing to try new things. She also saw Meadowview teachers as being aggressive. They were more willing to say what was on their mind.

Marcia and others believed that the principal sets the tone of the school. "And he does a good job!" (Marcia). Michael insisted that "the tenor and tone of the school has got to be set by the people who are leading," like the superintendent. Margaret believed

that everyone, "teachers, the principal and his idea of who he hires, the superintendent and then the board" set the tone of the school.

Meadowview teachers had many opportunities to collaborate. There were a lot of committee meetings throughout the year, providing the opportunity for structured interaction: student discipline, curriculum alignment, school calendar, policy procedures, interviewing, showers, and field trips. Because of the size of their district, there were a "tremendous number of committees to do things" (Madeline). Arrangements for classroom supervision were usually made to allow teachers release time for curriculum committee meetings. During these times there was an exchange of ideas across grade levels.

Teachers primarily began their day in the classroom preparing for the day. During lunch, many teachers gathered in the lounge for casual conversation. Before and after school also seemed to be reserved for casual, social talk. Planning periods appeared to be reserved for paper work or other menial tasks. Little professional collaboration took place during these scheduled periods even though teachers believed planning periods were used to collaborate with other teachers. Professional collaboration at Meadowview went on behind the scenes all of the time, whenever the need arose. Teachers were observed going in and out of other classrooms for a short visit. Teachers also interacted before, during, and after scheduled faculty meetings. The principal, Michael, encouraged this interaction and continually asked for teacher input on topics discussed. Teachers also noted that it was also not unusual for teachers to socially interact outside of the school environment.

An Interaction Sociogram for Meadowview, Figure 2, presents respondent interactions.

Insert Figure 2 about here

Comparison. Each school site had a unique climate. Teacher interaction was heavily promoted and exercised at Meadowview Elementary. Teachers tended to collaborate by grade level and across grade levels on a professional and social basis continuously through site-based decision making committees. Teacher professional collaboration was also promoted and deemed necessary at Deer Creek Upper Elementary, however, little professional collaboration actually took place except within the second grade team. Few opportunities were afforded to these teachers to be involved in site-based decision making committees or teaming. Most social collaboration took place before and after school, at lunch and outside the school on a social basis. Teachers at both sites believed the tone was primarily set by the principal. Occasionally, the teachers believed they affected the tenor of the school. Deer Creek respondents believed the superintendent greatly affected the climate of their school by his bureaucratic decisions. Table 6 summarizes each school context.

Insert Table 6 about here

Influences on Teacher Beliefs

Respondents also revealed sources that have impacted their beliefs. Two different influences emerged school experiences and life experiences.

School experiences. Many respondents felt that their beliefs of education were influenced by their interactions with and observations of other teachers. Debbie noted that "I'm open to listen to what other people have. Sometimes it changes me and sometimes it doesn't." Diane believed that teachers inside and outside her school system have had a positive impact on her beliefs of education. "There's certain people you meet that always have that spark of enthusiasm. They make things work. And that's always a positive influence."

Another influence of beliefs was teaching experience. Debbie noted that "just dealing with kids" everyday influenced her beliefs. Dorothy noted the same: "You watch and if it works and it's good and they like it, then you try it again with another one [group of students]."

Mentor teachers also had a great impact on teachers' beliefs. Dorothy and Dana agreed that their supervising teacher was the biggest influence. Dana said: "I think she [mentor teacher] had the right idea. She was a caring person, yet she was a firm disciplinarian. I think she just set the ground work." While in another educational system, Dawn noted the influence of a mentor teaching program where teachers had "access to professionals that are constantly giving you new ideas and things like that. That definitely had an influence."

Diane felt her beliefs were influenced "through observing and listening to the so-called 'experts' in the field …and by attending workshops and conventions where new ideas are present, [and] reading some of the literature, professional journals." Dawn agreed, "I've tried to always keep abreast of whatever is current, new ideas coming out and at least taste and delve those to see if I think it's worthy. And I try to implement it if I think it's good."

At Meadowview, most respondents also believed that their beliefs of education were influenced by their interaction and observations of other teachers. Margaret noted that "you see what works for them and so you try it." Margaret also believed a team member had a tremendous amount of influence on her because they worked so closely together.

Teaching experience was also mentioned as an influence on beliefs. Meg said that her beliefs were based on "trial and error, just what works for me." Margo agreed, "I am more influenced by my own experiences. I am always willing to read and to try something, but I do what works."

Martha's mentor teacher had a great impact on her beliefs. "My supervising teacher, when I did my intern teaching, definitely influenced me." Martha also attributed her beliefs to her educational background. She attained her master's degree in education many years ago. Margo admitted that her educational upbringing had a tremendous impact on her beliefs. "Probably my structure in the classroom is because that is the way I was taught."

Life experiences. At Deer Creek, specific life experiences impacted three respondents. Della attributed her beliefs not only to her school experiences, but her educational upbringing as well. She received her master's degree in education and believed that degree helped mold her beliefs. She also admitted that her educational upbringing and life experiences had a tremendous impact on her beliefs because that is "the way we were taught. That's what you know. That's the only thing you know." Debbie based her beliefs on what she felt was "necessary for kids to learn from my own experiences as a child and from being a mother." Dorothy agreed that raising her own children impacted her beliefs as a teacher. "As you go through certain ordeals and certain things you do with your own children...that slants an awful lot the way you then feel; the ways that you handle other situations." Dorothy also felt that her mother, a former educator, was a large influence.

At Meadowview, many teachers believed life experiences with their family members influenced their beliefs of education. Marcia attributed her beliefs to the upbringing her parents provided her. Meg's mother was a teacher and initially impacted her beliefs. Marie's father was a teacher and probably developed her interest in becoming a teacher. Marie also said the Challenger explosion influenced her teaching beliefs. It opened her eyes and made her really think. Madeline's entire family was in the education field; she believed she was born a teacher. In addition, Madeline said that "having a son who has really severe problems with learning" had greatly impacted her beliefs.

Comparison. At both sites, school experiences included trial and error in the classroom, teacher collaboration, mentor teachers, and educational background. Life experiences included raising a family, the Challenger explosion, and educational upbringing, including interacting with family members in education.

Analysis

First, given a review of the literature, teachers' beliefs were categorized as traditional or non-traditional. Second, the social networks within the school were categorized. Third, the impact strong and weak ties made on teachers' beliefs was assessed to determine if beliefs had been perpetuated.

What are teachers' beliefs about elementary education?

In general, teachers held beliefs about elementary education encompassing the range of traditional to non-traditional perspectives. The literature reveals that teachers ultimately control the goals, topics of instruction, teaching strategies, and activities within the classroom, despite any administrative efforts to control the curriculum and strategies (Goodlad, 1984; Glatthorn, 1987). This was also evidenced in this study as evidenced by teacher's general beliefs in the following areas:

1. Self as Teacher – non-traditional and traditional teachers believed the same things: that teachers must be responsible for providing a productive learning environment to facilitate learning, collaborate with peers, and mentor students.

2. General Pedagogy – traditional "goods" of basic foundation, basic skills, prepare students to succeed in society, develop self-confidence, and provide a balanced education. In sum, general pedagogy was "Mom and apple pie."

3. Specific Subject Matter Pedagogy – basically traditional reading, writing, and arithmetic centered around the teacher. Non-traditional teachers might add in a greater variety of instructional techniques, but content changed very little.

4. Nature of the Learner – both non-traditional and traditional teachers believed the same things: student's responsibility were to learn, actively participate and pay attention. The difference between the two occurred through the non-traditional perspective that students should be involved in making choices within the classroom and curriculum.

5. School Context – climates and cultures vary, impacting opportunities for interactions fostering the development of strong and weak ties. Homogeneous interactions lead to strong ties, which foster traditional perspectives and activities; heterogeneous interactions lead to weak times which foster more opportunities to be introduced to new knowledge. Building structures and principals acted to facilitate or hinder the development of ties of any kind.

What impacted those beliefs?

Life experiences more than school experiences. The 16 plus years teachers spend as students in classrooms before becoming teachers seem to have enduring influences. Buchmann (1987), Florio-Ruane and Lensmire (1990), and Wilson (1990) reported that teachers beliefs were often well established before they received their undergraduate training due to the many years they spent in the classroom as a student. This study confirms this belief.

This study also offers a vehicle for increasing the impact of school experiences. Through the development of weak ties, the new knowledge in schools and school districts may be able to become incorporated within schools throughout the district. Opportunities to interact both socially and professional outside strong cultural groupings will promote the development of weak new cultural ties or groupings. In this way, school experiences, expertise and knowledge may be able to impact teacher work and teaching outcomes.

How did strong ties and weak ties affect those beliefs?

Teachers with traditional teaching beliefs supported collaboration primarily by grade level, a strategy which enhanced the maintenance of those beliefs through the development of strong ties. In this environment, the absence of weak ties and the presence of strong ties seems to have perpetuated traditional teaching beliefs. Teachers with non-traditional teaching beliefs collaborated by grade level as well as across grade levels through committee work and faculty meetings. These strategies enhanced the development of both strong and weak ties. The maintenance of strong ties supported the status quo while the development of weak ties offered exposure to new ideas and concepts, a support system to carry out these new ideas, and the avenue to educational change.

It seems that social networks work to impact beliefs. Strong ties in schools ameliorate the effects of traditional life experiences. The weak ties in schools chip away even more at the traditional beliefs established through life experiences.

Implications and Recommendations

The findings of this study yield insights in the areas of theory, research, and practice.

Theory

Perpetuation Theory (McPartland & Braddock, 1981), in conjunction with Granovetter's (1973) strong and weak ties, was used to examine the link between social networks and teachers' beliefs about elementary education. To begin this process, teachers' beliefs were examined by using the components of Bennett and Spalding's Model (1991). The components were very useful in deconstructing teachers' beliefs. However, it would have been extremely helpful if these components had been operational defined.

Social networks were then examined through Granovetter's (1973) strong and weak ties to determine the strength of ties present within the school. This framework was conducive to examining social networks in each school. Perpetuation Theory provided a wonderful avenue to link teachers' beliefs and social networks and examine the impact of networks on beliefs. Perpetuation Theory offers many possibilities for further educational research in gender in education, gender in administration, and the existence of gangs in schools.

Research

Given that "little attention has been accorded to the structure and functions of teachers' beliefs about their roles, their students, the subject matter areas they teach, and the schools they work in" (Nespor, 1987, p. 317), the findings of this study have added to the knowledge base of teachers' beliefs, social networks within the schools, perpetuation of beliefs, and educational change. Further research might examine the various ways in which strong ties are perpetuated and weak ties are developed. Future research might also examine the impact of strong and weak ties on the classroom, as well as strength of ties and their connection to the culture of the school.

Since this study focused on elementary teachers and administrators' beliefs and social networks, another study might examine secondary teachers and administrators' beliefs and social networks and yet another study might examine beliefs and networks present at the university level, of both professors and students.

Practice

These findings seem significant to educational practice because they may allow teachers to reflect on their own beliefs and perhaps understand why they believe the way they do. Given the schools in this study, organized opportunities for teacher professional collaboration must be made available. Principals need to be aware of the existing social networks within the school and build upon those. Teachers do not naturally collaborate about professional matters on their own accord and yet they possibly learn most from their colleagues in their own school. Teacher professional collaboration offers teachers the opportunity to reflect on their own beliefs, to express those beliefs to colleagues, and critique and alter those beliefs. The principal must facilitate this professional collaboration. Teachers should have opportunities to talk about their beliefs and practices, observe other classrooms, plan, design, and evaluate curriculum, and be encouraged to participate in group decision making.

Future studies on practice should examine the means by which social networks can be developed at school. More specifically, the means by which weak ties can be developed.

Commentary

When we began this study, our real interest was in why schools do not change. We wanted to understand why schools continue to foster traditional teaching styles despite multiple and diverse attempts to disseminate new knowledge through in-service and through teacher preparation

programs? As educators, we have seen many new teachers enter the teaching field eager to practice the exciting, new methods they were taught in college. After several years of experience, their classrooms began to look like the room next door. The traditional was being perpetuated, with a bit of their personality woven into it. As this study evolved, we began to question if the relationships teachers developed with one another actually impacted their teaching, their beliefs, and their attitude. Are new teachers regressing back to traditional perspectives because they are comfortable and familiar methods or because they are effective methods?

As the study evolved, we began to see the impact of the principal's role as a fosterer of positive networking. Teachers needed to have time to develop social networks through professional collaboration. But how? Teachers generally had no scheduled time away from the classroom to discuss professional matters. The only times were usually at the end of a work day of which teachers were mentally and physically exhausted. These times were simply not conducive to professional collaboration. However, if we want change in education, we must search for opportunities to facilitate professional collaboration. Fullan (1991) claims that the power of change lies in teacher collaboration and that the degree of success for that change is related to the extent teachers interact with each other. Thus, we have come to the conclusion that change is not possible without the development of weak ties, fostered through teacher professional collaboration.

Table 1

Statistical Data of Research Sites

	Deer Creek	Meadowview
City Population	4,353	2,360
City Type	Rural	Rural
Percent Minority Population		
White	88%	87%
African American	less than 1%	0%
American Indian	11%	12%
Asian	less than 1%	0%
Hispanic	less than 1%	1%
Percent Minority Enrollment		
White	60%	83%
African American	1%	less than 1%
American Indian	38%	15%
Asian	0%	less than 1%
Hispanic	1%	1%
Number of Schools		
High School	1	0
Middle School	1	1
Elementary School	2	1
Site Enrollment	360	280
Site Staff		
Educational Level		
BS/A	3	5
MA/Ed	5	3
Average Yrs of Experience	15	9
Range of Experience	5-22	1-22
Average Yrs at Site	14	12
Range of Years at Site	6-20	2-21

Table 2

Self As Teacher

	Deer Creek	Meadowview
Teachers' Responsibilities		
Within the classroom		
Provide a productive Environment	Xx	Xx
Facilitate Learning	Xx	Xx
Plan Curriculum	Xx	
Mentor Students	Xx	
Set Good Examples		Xx
Provide Guidance		Xx
Within the school		
Collaborate with Teachers	Xx	Xx
Provide Leadership	Xx	
Role Model to Peers	Xx	
Work on Committees		Xx
Communicate with Peers		Xx

Table 3

General Pedagogy Beliefs

	Deer Creek	Meadowview
Purposes of Education		
Provide a Basic Foundation	Xx	Xx
Teach Basic Skills	Xx	Xx
Prepare Students to Succeed in Society	Xx	Xx
Develop Self-Confidence	Xx	Xx
Provide a Balanced Education	Xx	Xx
Selection of the Curriculum		
Administration	Xx	
State or National Guidelines		Xx
Teachers	Xx	Xx
Textbook Companies		Xx
Combination	Xx	Xx

Table 4

Specific Subject Matter Pedagogy

	Deer Creek	Meadowview
Priority of Subjects/Skills		
Reading	Xx	Xx
Writing	Xx	Xx
Arithmetic	Xx	Xx
Communication		Xx
Teaching Strategies		
Teach Subjects in Isolation	Xx	Xx
Teach an Integrated Curriculum	Xx	Xx
Direct Instruction	Xx	
Hands-on	Xx	Xx
Homework Study	Xx	
Learning Centers	Xx	Xx
Cooperative Activities	Xx	Xx
Individualization	Xx	
Peer Tutoring	Xx	Xx
Whole Language		Xx
Oral Repetition		Xx

Table 5

Nature of the Learner

Students' Responsibilities	Deer Creek	Meadowview
Learn	Xx	Xx
Actively Participate	Xx	Xx
Pay Attention	Xx	Xx
Take More Responsibility For Actions	Xx	
Do Their Best		Xx
Make Choices		Xx
Ways to Learn		
Variety	Xx	Xx
Learn by Doing	Xx	Xx
Peer Tutoring	Xx	
Cooperative Learning	Xx	

Figure 1

Deer Creek Upper Elementary Sociogram

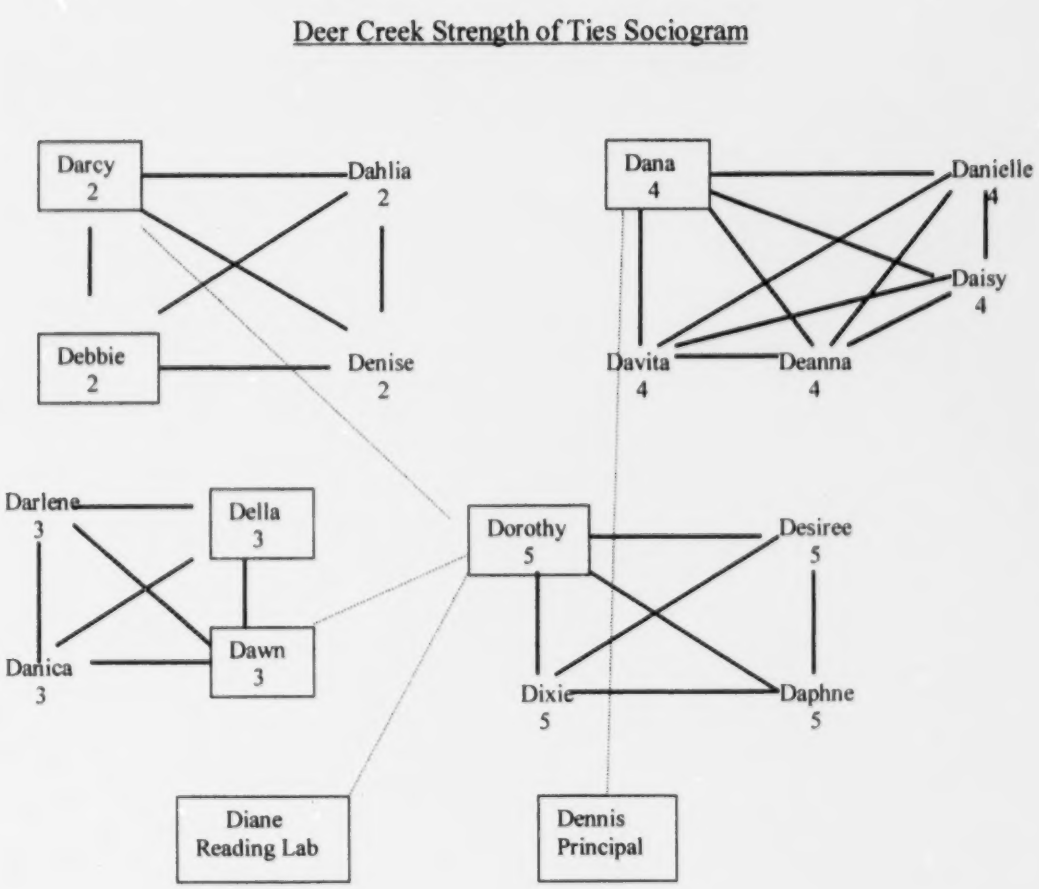

Figure 2

Meadowview Interaction Sociogram

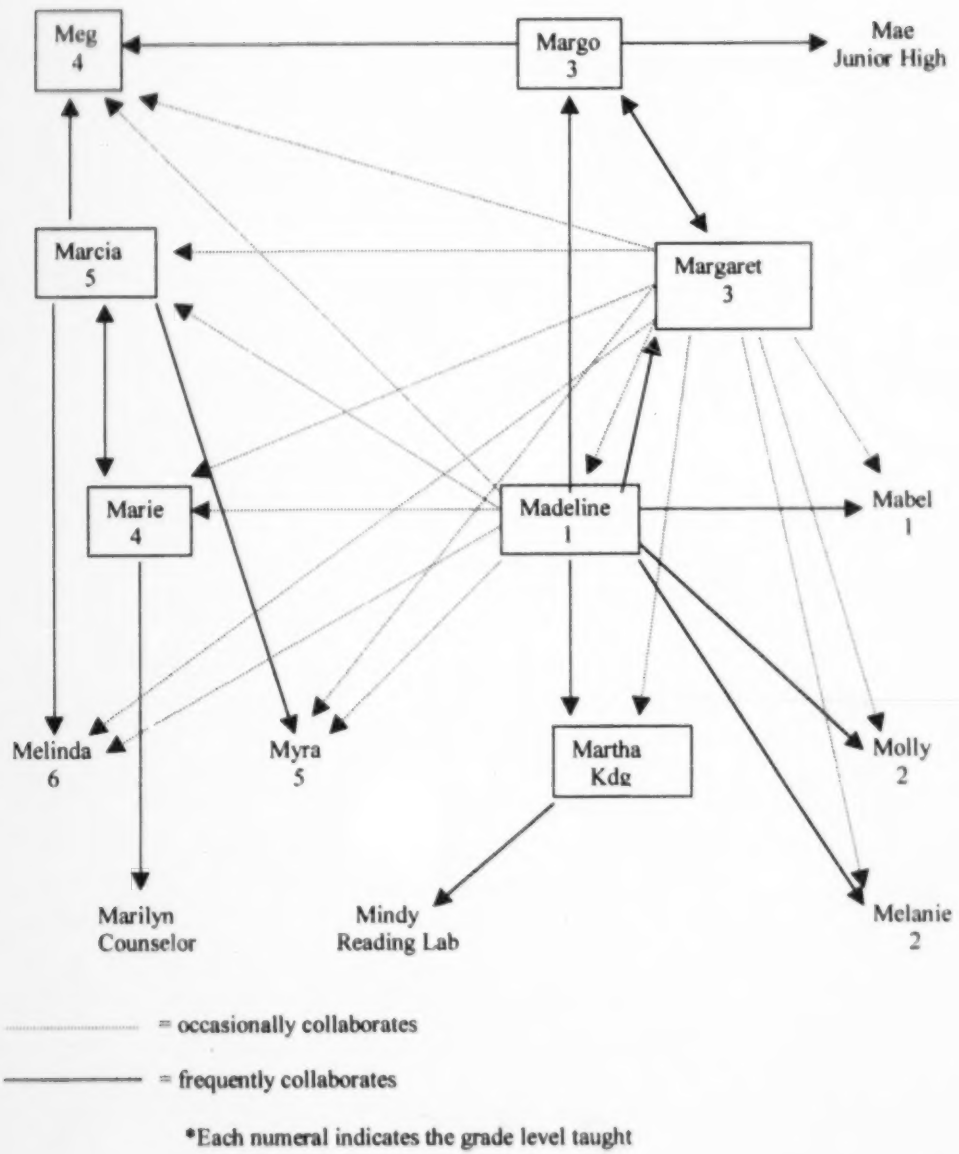

Table 6

School Context

Teacher Collaboration	Deer Creek	Meadowview
By Grade Level		
During Lunch	Xx	Xx
Before School	Xx	Xx
After School	Xx	Xx
Faculty Meetings		Xx
During Committees		Xx
Outside Socials	Xx	Xx
Across Grade Levels		
During Lunch	Xx	Xx
Before School		Xx
After School		Xx
Faculty Meetings		Xx
During Committees		Xx
Outside Socials	Xx	Xx
Tone Set By:		
Superintendent	Xx	
Principal	Xx	Xx
Teachers	Xx	Xx

References

Bauch, P.A. (1982, March). Predicting elementary classroom teaching practices from teachers' beliefs. Paper presented at the annual meeting of the American Educational Research Association, New York.

Bennett, C. & Spalding, E. (1991, April). A study of teaching perspectives held by career-change preservice and novice teachers in an alternative teacher education program. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Braddock, J.H. (1980). The perpetuation of segregation across levels of education: A behavioral assessment of the contact-hypothesis. Sociology of Education, 53, 178-186.

Buchmann, M. (1987). Teaching knowledge: The lights that teachers live by. Oxford Review of Education, 13, 151-164.

Cuban, L. (1984). How teachers taught: Constancy and change in American classrooms, 1890-1980. New York: Longman.

Florio-Ruane, S., & Lensmire, T.J. (1990). Transforming future teachers' ideas about writing instruction. Journal of Curriculum Studies, 22, 277-289.

Fullan, M.G. (1991). The new meaning of educational change (2nd ed.). New York: Teachers College Press.

Glatthorn, A.A. (1987). Teacher autonomy v. curricular anarchy. NASSP Bulletin, 71 (498), 77-84.

Goodlad, J.I. (1984). A place called school: Prospects for the future. New York: McGraw-Hill.

Granovetter, M. (1973). The strength of weak ties. American Journal of Sociology, 78, 1360-1380.

Hargreaves, A., & Fullan, M.G. (1992). Understanding teacher development. New York: Teachers College Press.

Kagan, D.M. (1992). Implications of research on teacher belief. Educational Psychologist, 27 (1), 65-90.

Lortie, D.C. (1975). Schoolteacher: A sociological study. Chicago: University of Chicago Press.

McPartland, J.M., & Braddock, J.H. (1981). Going to college and getting a good job: The impact of desegregation. In W.D. Hawley (Ed.). Effective school desegregation: Equality, quality and feasability (pp. 141-154). London: Sage.

Nespor, J. (1987). The role of beliefs in the practice of teaching. Journal of Curriculum Studies, 19, 317-328.

Parkay, F.W., & Standford, B.H. (1992). Becoming a teacher: Accepting the challenge of a profession (2nd ed.). Boston: Allyn and Bacon.

Schubert, W.H. & Ayers, W.A. (Eds.). (1992). Teacher lore: Learning from our own experience. New York: Longman.

Wells, A.S., & Crain, R.L. (1994). Perpetuation theory and the long-term effects of school desegregation. Review of Educational Research, 64 (4), 531-555.

Wilson, S.M. (1990). The secret garden of teacher education. Phi Delta Kappan, 72, 204-209.